

Search history

Search SFT=((ethylene homopolymer) or (ethylene copolymer) or (polypropylene copolymer)) (Results 33256)

1:

Search maleic anhydride grafted polymer (Results 414)

2:

Search polar 1w layer (Results 481)

3:

Search functional 1w polymer (Results 7338)

4:

Search 1 and 2 and 3 and 4 (Results 1)

5:

Search [SP]: 1. a multi-layer structure comprising: a) at least one layer comprising a polyolefin component comprising i) 60 to 94 weight percent of a first component selected from the group consisting of ethylene homopolymer, ethylene copolymer, polypropylene homopolymer, polypropylene copolymer, and combinations thereofii) 0-35 weight percent of a functional polymer component, andiii) 1-35 weight percent of a compatibilizer component comprising an anhydride and/or carboxylic acid functionalized ethylene/alpha-olefin interpolymers having a melt viscosity (177 degrees centigrade) less than, or equal to, 200,000 cp and a density from 0.855 to 0.94 g/ccb) at least one tie layer comprising maleic-anhydride grafted polymer with a melt index of less than 50 dg/min, wherein the tie layer does not contain the compatibilizer component andc) at least one polar layer comprising a polar polymer. 2. the multi-layer structure of claim 1, wherein the ratio of the compatibilizer component to the polar polymer is in the range of 0.2-4.0:1.0 by weight. 3. the multi-layer structure of claim 1, wherein the polar layer comprises a layer of evoh. 4. the multi-layer structure of claim 1, wherein the polar layer comprises a layer comprising a nylon selected from the group consisting of nylon 6, nylon 66, nylon 6/66 and combinations thereof. 5. the multi-layer structure of claim 1, wherein the polar layer comprises at least one layer of evoh and at least one layer of a nylon selected from the group consisting of nylon 6, nylon 66, nylon 6/66 and combinations thereof. 6. the multi-layer structure of claim 1, wherein the ethylene homopolymer or ethylene alpha-olefin copolymer is selected from the group consisting of homopolymer polyethylene, an ethylene alpha-olefin copolymer, polypropylene, random polypropylene, and mixtures thereof. 7. the multi-layer structure of claim 6, wherein the polyolefin component comprises a blend of 5 to 30 weight percent of a sealant polymer and 70 to 95 weight percent of the ethylene homopolymer or ethylene alpha-olefin copolymer. 8. the multi-layer structure of claim 1 wherein the functional polymer component is selected from the group consisting of a maleic anhydride functionalized polyolefin, acrylate ethylene copolymer, ethylene vinyl acetate, and mixtures thereof. 9. an article prepared from the multi-layer structure of claim 1. 10. a method for making a recycled structure comprising a) converting the multi-layer structure of claim 1 into flakesb) optionally converting the flakes into pellets and/or pellets forming the recycled structure from the flakes and/or pellets wherein the method does not involve the use of the compatibilizer component. 11. the method of claim 10, wherein the flakes and/or pellets form the recycled structure in step c) by i) continuously transferring edge trim from a blown or cast film process directly back into the feed stream, and ii) optionally combining the trim with other polymers to form a layer in a multi-layer structure. 12. a film having at least one layer which comprises the recycled structure of claim 10. (Results 15)

Search pd<31/12/2014 (Results 0)

7:

Search pd<20141231 (Results 1000000)

8:

Search 8 and 6 (Results 14)

9:

Title: ULTRA VIOLET LIGHT RESISTANT LAMINATE, AND PROCESS OF MANUFACTURING THE SAME

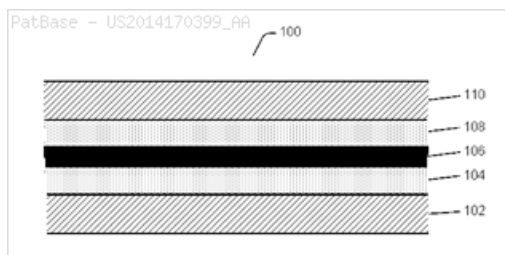
Abstract: The present disclosure relates to a laminate comprising: an outer polyethylene layer comprises at least 10 percent on the weight of polyethylene, a UV radiation blocking agent or a chromophore; a barrier layer with at least 15 percent -50 percent of an aromatic polyamide; and a polyethylene sealant layer. The Ultra Violet radiation resistant laminate is an opaque laminate or a transparent laminate. The outer polyethylene layer and the barrier layer with at least one aromatic polyamide is a multilayer film, preferably three layer film. The present disclosure also relates to a process for the preparation of the laminate.

Classifications:

International (IPC 8-9): B32B27/08 B32B27/18 B32B27/20 B32B27/34 C08J7/04 (Advanced/Invention)

CPC: B32B27/20 B32B2307/71 B32B27/18 B32B27/08 B32B27/34 Y10T428/24975 Y10T428/31757

US: 156/244.11 428/216 428/476.9



Family:

Publication number	Publication date	Application number	Application date
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CN104093568 B	20160831	CN201280026989	20120531
EP2714395 A2	20140409	EP20120792796	20120531
IN01629MU2011 A	20121214	IN2011MU01629	20110602
US2014170399 AA	20140619	US20120123429	20120531
WO12164585 A2	20121206	WO2012IN00379	20120531

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IN2011MM01629 20110602 IN2011MU01629 20110602 WO2012IN00379 20120531

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESS FOR MAKING ULTRA-LOW MOLECULAR WEIGHT ETHYLENE POLYMERS AND BLENDS THEREOF

Abstract: The subject invention pertains to a non-pourable homogeneous ultra-low molecular weight ethylene polymer composition and a process for the preparation thereof. Such polymer compositions have longer lamella and a greater degree of crystalline organization than corresponding higher molecular weight materials at an equivalent density.

Classifications:

International (ipc 8-9): C08F10/02 C08F110/02 C08F210/02 C08F210/16 C08F4/16 C08F4/642 C08F4/659 C08F4/6592 C09J123/08 (Advanced/Invention); C08F210/02 C08F210/16 C08F4/659 C08F4/6592 (Advanced/Non-invention);

C08F10/00 (Core/Invention);
C08F10/02 (Core/Non-invention);
C01F C08F (Subclass/Invention)

International (ipc 1-7): A61K9/14 C01F C06F10/02 C06F210/00 C08F10/02 C08F110/02 C08F110/04 C08F210/02 C08F210/04 C08F210/14 C08F210/16 C08F4/16 C08F4/42 C08F4/44 C08F4/602 C08F4/642

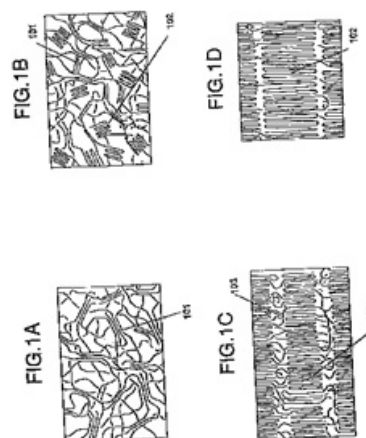
CPC: Y10S526/901 Y10S526/943 C08F10/00 C08F4/65908 C08F4/65912 C08F4/6592 C08F210/02 C08F210/16

European: C08F10/00 C08F210/02 C08F210/16 M08F210/16 M08F4/6592 M08F4/659D M08F4/659K

US: 502/152 502/155 520/161 520/348 520/348.5 520/348.6 520/901 526/133 526/16 526/160 526/160S 526/161 526/161S 526/348 526/348.2 526/348.200S 526/348.3 526/348.4 526/348.5 526/348.500S 526/348.6 526/348.600S 526/348.7 526/348P 526/352 526/352S 526/901 526/943 526/943S 585/1 585/10 585/10S 585/12 585/12S 585/9 585/9S

PatBase - US2002156222_A1

Patent Application Publication Oct. 24, 2002 Sheet 1 of 25 US 2002/0156222 A1



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Priority:

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EP20050028500	19970122	JP19970526309	19970122	JP20050253070	19970122
US19970784683	19970122	WO1997US01181	19970122	EP19970904867	19970724
KR19980705570	19980721	US19990359486	19990722	US20010026158	20011221

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Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CN CU CZ DE DK EE ES FI FR GB GE GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN

Title: POLYOLEFIN CONSTRUCTION

Abstract: A polyolefin construction comprising at least one polyolefin (PO) layer, a barrier layer for the polyolefin layer and a compatibiliser for the PO and the barrier layer, which compatibiliser enables the PO and barrier layer to adhere together, whereby the barrier layer comprises the compatibiliser; a blended barrier layer polymer and the barrier layer formed therefrom and a process for producing the polyolefin construction.

Classifications:

International (IPC 8-9): B29C49/08 B29C49/22 B32B27/00 B32B27/08 B32B27/30 B32B27/32

B32B27/34 (Advanced/Invention);

B32B27/08 B32B27/30 B32B27/32 B32B27/34 (Core/Invention)

International (IPC 1-7): B32B27/08

CPC: Y10T428/31855 Y10T428/31913 B32B27/32 B29C49/0005 B29C49/06 B29C49/12 B29C49/221 B29K2023/086

B29K2023/12 B29K2995/0067 B29K2995/0069 B32B27/08 B32B27/34 B32B27/18 B32B27/28 B32B27/302 B32B27/304

B32B27/306 B32B2250/24 B32B2270/00 B32B2307/50 B32B2307/514 B32B2307/558 B32B2307/704 B32B2307/7242

B32B2307/7244 B32B2307/7246 B32B2439/00 B32B2439/70 B32B2439/80

European: B29C49/00B B29C49/22B B32B27/08 B32B27/30 B32B27/32 B32B27/34 L29C49/06 L29C49/12 L29K23/08D

L29K23/12 L29K995/00F16B L29K995/00F17B

US: 264/513 264/513S 264/537 264/537S 428/500 428/500S 428/516 428/516P

Family:

Publication number	Publication date	Application number	Application date
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 US2011236708 AA	20110929	US20090120385	20090922
 WO10034456 A1	20100401	WO2009EP06824	20090922

Priority:

EP20080164881 20080923 EP20090736816 20090922 WO2009EP06824 20090922

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Inventor(s): A YSA D HARRY ; SKAU KARL ; JOHANSEN GEIR

Agent(s): KADOR AND PARTNER; BOREALIS POLYOLEFINE GMBH

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: ETHYLENE RANDOM COPOLYMERS

Abstract: In accordance with the present invention, there are provided ethylene copolymers composed of structural units (a) derived from ethylene and structural units (b) derived from alpha-olefin of 3 DIFFERENCE 20 carbon atoms, said ethylene copolymers having [A] a density of 0.85 DIFFERENCE 0.92 grams per cubic centimetre, [B] an intrinsic viscosity [eta] as measured in decalin at 135 DEG C. of 0.1 DIFFERENCE 10 dl/g, [C] a ratio (and upbarand Mw/ and upbarand Mn) of a weight average molecular weight (and upbarand Mw) to a number average molecular weight (and upbarand Mn) as measured by GPC of 1.2 DIFFERENCE 4, and [D] a ratio (MFR10/MFR2) of MFR10 under a load of 10 kg to MFR2 under a load of 2.16 kg at 190 DEG C. of 8 DIFFERENCE 50, and being narrow in molecular weight distribution and excellent in flowability.

Classifications:

International (IPC 8-9): C08F10/00 C08F10/02 C08F10/06 C08F210/00 C08F210/02 C08F210/06 C08F210/08 C08F210/16 C08F4/16 C08F4/60 C08F4/64 C08F4/642 C08F4/656 C08F4/6592 C08F4/76 C08F8/00 C09J123/02 C09J123/10 (Advanced/Invention); C08F110/06 C08F210/06 C08F4/64 C08F4/659 C08F4/6592 (Advanced/Non-invention); C08F10/00 C08F210/00 C08F4/00 C08F8/00 C09J123/00 (Core/Invention); C08F110/00 C08F4/00 (Core/Non-invention)

International (IPC 1-7): C08F10/00 C08F10/06 C08F210/00 C08F210/02 C08F210/06 C08F210/06 C08F210/14 C08F210/16 C08F4/16 C08F4/64 C08F4/642 C08F4/643 C08F4/656 C08F4/76 C09J123/10

CPC: Y10S526/916 Y10S526/943 C08F210/16 C08F4/65912 C08F4/65916 C08F4/65927 C08F10/00 C08F10/06 C08F110/06 C08F210/06 C08F210/08

European: C08F10/00 C08F10/06 C08F210/08 C08F210/16 M08F10/06 M08F110/06 M08F210/06 M08F210/16 M08F4/64B8 M08F4/6592B4 M08F4/659K M08F4/659L

US: 502/103 502/117 502/132 502/153 526/127 526/128 526/129 526/151 526/153 526/160 526/162 526/165 526/348 526/348.2 526/348.3 526/348.4 526/348.5 526/348.6 526/916 526/943

PatBase - US5218071_A

U.S. Patent

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5,218,071

FIG. 1

(A) Transition metal component

Hafnium compound having as a ligand a multidentate compound in which at least two groups selected from among conjugated cyclohexadienyl groups or substituted groups thereof are linked together via lower alkylene groups, or a treated product thereof.

(B) Organometallic component

Organometallic compound

Olefin copolymer

Family:

Publication number	Publication date	Application number	Application date
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CA2008315 C	19950321	CA19902008315	19900123
DE68928696 D1	19980709	DE19896028696	19891221
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Priority:

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US19950459795	19950602	US19960650425	19960520	US19970831953	19970402

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Agent(s): SMART AND BIGGAR

Designated states: AT BE CH DE ES FR GB IT KR LI LU NL SE US

Title: ELASTIC SUBSTANTIALLY LINEAR OLEFIN POLYMERS

Abstract: Substantially linear olefin polymers having a melt flow ratio, I_{10}/I_2 , greater than or equal to 5.63, a molecular weight distribution, M_w/M_n , defined by the equation: M_w/M_n less than or equal to $(I_{10}/I_2)-4.63$, and a critical shear stress at onset of gross melt fracture of greater than about 4×10^6 dyne/cm² and their method of manufacture are disclosed. The substantially linear olefin polymers preferably have at least about 0.01 long chain branches/1000 carbons and a molecular weight distribution from about 1.5 to about 2.5. The new polymers have improved processability over conventional olefin polymers and are useful in producing fabricated articles such as fibers, films, and molded parts.

Classifications:

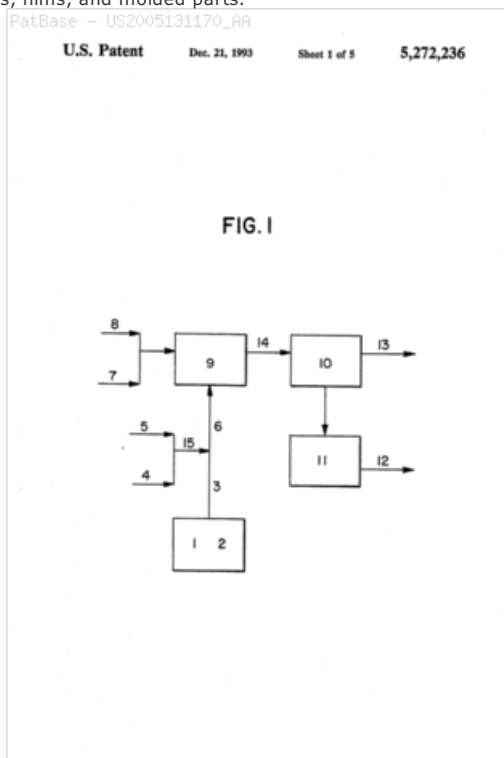
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Probable Assignee: DOW CHEMICAL CO

Assignee(s): (std): DOW CHEMICAL CO ; STEVENS JAMES C ; THE DOW CHEMICAL COMPANY

Assignee(s): THE DOW CHEMICAL CO MIDLAND MICH US ; THE DOW CHEMICAL CO ; LAI SHIH YAW ; WILSON JOHN R ; KNIGHT GEORGE W ; KNIGHT GEORGES W ; CHUM PAK WING S ; CHUM PAK WING STEVE ; DAU CHEM CO ZA

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Agent(s): SMART AND BIGGAR; WHYTE HIRSCHBOECK DUDEK SC

Designated states: AT BE CA CH DE DK ES FI FR GB GR IE IT JP KR LU MC NL SE US

Title: OLEFIN POLYMERIZATION CATALYSTS

Abstract: The invention is a catalyst system including a Group IV B transition metal component and an alumoxane component which may be employed to polymerize olefins to produce a high molecular weight polymer.

Classifications:

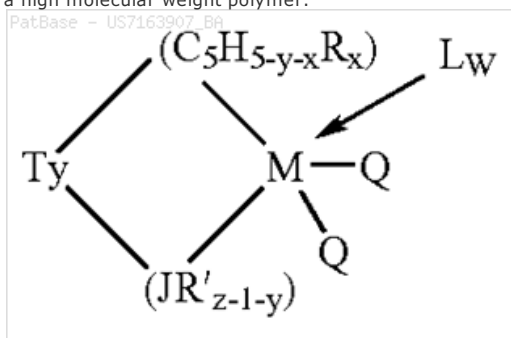
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US19980222971	19981230	US19990335321	19990617	US20060387217	20060323

Probable Assignee: EXXON MOBIL CORP

Assignee(s): (std): EXXON CHEMICAL PATENTS INC US ; EXXON CHEMICAL PATENTS INC ; EXXON MOBIL CHEM PATENTS INC ; CANICH JO ANN M ; CANICH JO ANN MARIE ; EXXON CHEMICAL PATENTS INC ; EXXONMOBIL CHEM PATENTS INC ; EXXON MOBIL CHEMICAL PATENTS I ; TURNER HOWARD W

Assignee(s): EXXONMOBIL CHEMICAL PATENTS INC ; HLATKY GREGORY G ; EXXONMOBIL CHEMICAL PATENTS INC FLORHAM PARK ; EXXONMOBIL CHEMICAL PATENTS INC HOUSTON ; EXXONMOBIL CHEMICAL PATENTS INC LINDEN ; TURNER HOWARD WILLIAM ; HLATKY GREGORY GEORGE ; EXXON MOBIL CORP ; EXXON MOBIL CHEMICAL PATENTS INC ; EXXON CORP ; EHKSON KEMIKEL PEJMENTS INK ; EKSON KEMIKAL PEJMENTS INK ; EKSON KEMIKEL PATENTS INK ; EKUSON CHEM PATENTS INC ; EXXON CHEM PATENTS INC ; EXXON CHEMICAL PATENT INC ; EXXON CHEMICAL PATENTS INC A OF DE CORP ; EXXON CHEMICAL PATENTS INC A OF DELAWARE CORP ; EXXON CHEMICAL PATENTS ; EXXON CHEMICAL PATENTS INC A CORP OF DE ; EXXON CHEMICAL PATENTS INC LINDEN N J US ; EXXON CHEMICAL PATENTS INC FLORHAM PARK N J US ; EXXON CHEMICAL PATENTS INC LINDEN ; EXXON CHEMICAL PATENTS INC FLORHAM PARK

Inventor(s): (std): CANICH JO A M ; CANICH JO ANN ; CANICH JO ANN M ; CANICH JO ANN MARIE ; CANICH JOANN MARIE ; DZHO ENN MARI KENIKH ; ECKMAN RICHARD R ; GOVARD UIL JAM TERNER ; GOVARD UILYAM TERNER ; GREGORI DZHORDZH KHLATKI ; GREGORY GEORGE HLATKY ; GUREGORII JIYOOJI RATOKII ; HOWARD WILLIAM TURNER ; HOWARD WILLIAM TURNER ; JIYOO AN MARII KIYANITSUKU ; LICCIARDI GARY F ; TURNER H W ; TURNER HOWARD W ; TURNER HOWARD WILLIAM ; HAWAADO UIRIAMU TAANAA ; HLATKY G G ; HLATKY GG ; HLATKY GREGORY G ; HLATKY GREGORY GEORGE ; TURNER HW ; TURNER WILLIAM HOWARD ; JOANN MARIE CANICH ; JO ANN MARIE CANICH ; JO ANN CANICH ; HLATRY GREGORY GEORGE ; CANICH JO ANN MARIE US

Inventor(s): CANICH JO ANN MARIE HOUSTON TEXAS 77058 US ; CANICH JO ANN MARIE HOUSTON TX 77058 US ; HLATKY GREGORY GEORGE KATY TEXAS 77450 US ; HLATKY GREGORY GEORGE HOUSTON TX 77062 US ; HLATKY GREGORY GEORGE HOUSTON TEXAS 77062 US ; GOVARD UIL'JAM TERNER ; TURNER HOWARD WILLIAM WEBSTER TX 77598 US ; TURNER HOWARD WILLIAM HOUSTON TEXAS 77059 US ; TURNER HOWARD WILLIAM CUPERTINO CALIFORNIA... ; TURNER HOWARD WILLIAM CUPERTINO

Agent(s): CALIFORNIA 95014 U ; HLATRY GREGORY GEORGE HOUSTON TEXAS 77062 US ; TURNER HOWARD
WILLIAM WEBSTER TEXAS 77598 US ; GUREGORII JOOJI RATOKII
WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY
LTD; BORDEN LADNER GERVAIS LLP; REINHOLD COHN AND PARTNERS; YAMASAKI YUKUZO; EXXON
CHEMICAL COMPANY; EXXON CHEMICAL CO; CATHERINE L; MYRON B

Designated states: AT AU BE BR CA CH DE DK ES FI FR GB GR HU IT JP KR LI LU NL NO SE SU US

Title: HIGH PRESSURE, HIGH TEMPERATURE POLYMERIZATION OF ETHYLENE

Abstract: A process for polymerizing or copolymerizing ethylene, either alone or in combination with other olefins, comprising contacting said ethylene or alpha-olefin, either alone or in combination with other olefins, with a catalyst comprising a cyclopentadienyl-transition metal compound and an alumoxane compound at an elevated temperature and pressure and wherein the ratio of aluminum in the alumoxane to the total metal in the metallocene is in the range of 1000:1 to 0.5:1.

Classifications:

International (IPC 8-9): C08F10/00 C08F10/02 C08F210/02 C08F210/16 C08F4/60 C08F4/62 C08F4/622 C08F4/64 C08F4/642 C08F4/646 C08F4/659 C08F4/6592 (Advanced/Invention); C08F210/16 C08F4/659 C08F4/6592 (Advanced/Non-invention); C08F10/00 C08F210/00 C08F4/00 (Core/Invention); C08F210/00 C08F4/00 (Core/Non-invention); C08F (Subclass/Invention)

International (IPC 1-7): B01J23/00 B01J38/02 C08F10/00 C08F10/02 C08F10/06 C08F10/200 C08F110/02 C08F2/00 C08F210/02 C08F4/00 C08F4/60 C08F4/62 C08F4/622 C08F4/64 C08F4/642

CPC: Y10S526/902 Y10S526/943 C08F10/00 C08F4/65912 C08F4/6592 C08F10/02 C08F210/16

European: C08F10/00 C08F10/02 M08F10/02 M08F210/16 M08F4/6592 M08F4/659K

US: 526/160 526/339 526/348.2 526/348.5 526/348.6 526/352 526/902 526/943

PatBase - US5084534_A

U.S. Patent

Jan. 28, 1992

5,084,534

Productivity vs Al/M Ratio

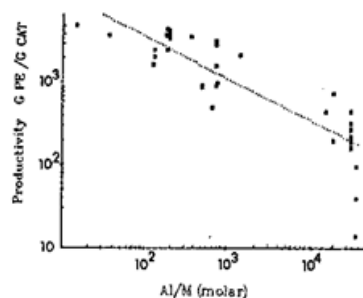


FIGURE 1

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Priority:

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IN1987DE00495 19870609

US19870054785 19870604
EP19870903988 19870610

CA19870539146 19870608
WO1987US01353 19870610

Probable Assignee: EXXON MOBIL CORP

Assignee(s): (std): EXXON CHEMICAL PATENTS INC ; EXXON MOBIL CORP ; EXXONMOBIL CHEM PATENTS INC

Assignee(s): EXXONMOBIL CHEMICAL PATENTS INC ; WELBORN HOWARD CURTIS JR ; SPEED CHARLES STANLEY ; EXXON CHEMICAL PATENTS INC A CORP OF DE ; EXXON CHEMICAL PATENTS INC LINDEN N J US ; EXXON CHEMICAL PATENTS INC US

Inventor(s): (std): SPEED CH S ; WELBORN HOWARD CURTIS ; WILBORN JR HOWARD CURTIS ; WELBORN JR HOWARD C ; WELBORN JR ; WELBORN HOWARD CURTIS US ; WELBORN HOWARD CURTIS JR ; WELBORN HOWARD C ; WELBORN HC ; SPEED CS ; SPEED CHARLES STANLEY US ; SPEED CHARLES S ; HOWARD CURTIS WELBORN JR ; CHARLES STANLEY SPEED ; WELBORN JR HOWARD CURTIS ; WELBORN HOWARD C JR ; WELBORN HOWARD ; WELBORN H C ; SPEED CHARLES STANLEY ; SPEED CHARLES ; SPEED C S

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Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP

Designated states: AT AU BE BR CH DE DK FI FR GB HU IT JP KR LI LU NL NO SE SU

Title: PROCESS AND CATALYST FOR POLYOLEFIN DENSITY AND MOLECULAR WEIGHT CONTROL

Abstract: Catalysts comprising (a) derivatives of mono, bi and tricyclopentadienyl coordination complexes with a transition metal and (b) an alumoxane are employed in a process of producing polyolefins of controlled molecular weight.

Classifications:

International (IPC 8-9): B01J31/22 C07F17/00 C07F7/00 C08F10/00 C08F10/02 C08F110/02 C08F210/02 C08F210/16 C08F4/00 C08F4/60 C08F4/602 C08F4/64 C08F4/642 C08F4/659

C08F4/6592 (Advanced/Invention);

C08F110/02 C08F210/16 C08F4/00 C08F4/659

C08F4/6592 (Advanced/Non-invention);

C07F17/00 C08F10/00 C08F210/00 C08F4/00 (Core/Invention);

C08F110/00 (Core/Non-invention)

International (IPC 1-7): B01J31/22 C07F17/00 C07F7/00 C07F7/08

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C08F4/642 C08F4/76

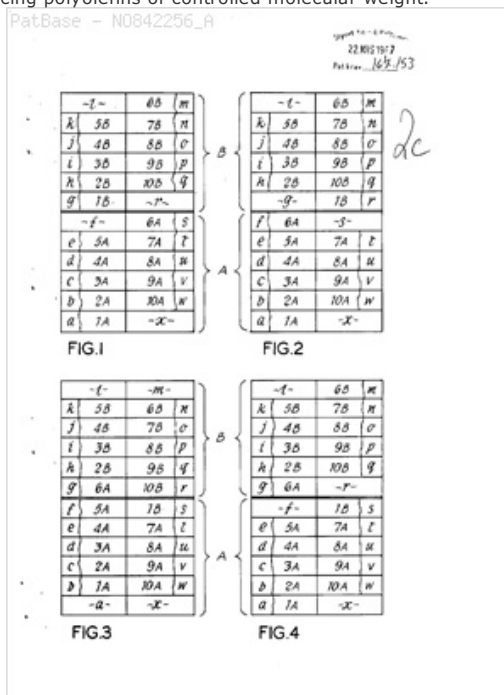
CPC: Y10S526/904 Y10S526/943 C07F17/00 C08F4/65912

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European: C07F17/00 C08F10/00 M08F110/02 M08F210/16

M08F4/6592 M08F4/6592B4 M08F4/659K

US: 502/103 502/104 502/117 502/155 502/158 526/127 526/129 526/150 526/156 526/160 526/348 526/352 526/904 526/943 556/11 556/12 556/23 556/28 556/43 556/52 556/53 556/56 556/58



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Priority:

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Probable Assignee: EXXON MOBIL CORP

Assignee(s): (std): EXXON CHEMICAL PATENTS INC ; EXXON MOBIL CORP ; EXXON RESEARCH ENGINEERING CO ; EXXONMOBIL RES AND ENG CO

Assignee(s): EXXON RESEARCH AND ENGINEERING COMPANY ; EXXONMOBIL RESEARCH AND ENGINEERING COMPANY ; EXXON RESEARCH AND ENGINEERING ; WELBORN HOWARD C JR ; EXXON RES AND ENG CO ; EXXON RESEARCH AND ENGINEERING CO ; EXXONMOBIL RESEARCH AND ENGINEERING CO ; ESSO RES AND ENG CO ; EWEN JOHN A

Inventor(s): (std): EWEN JOHN A ; EWEN JOHN ALEXANDER ; HAWAADO KAACHISU UERUBOON JIYU ; HAWAADO KAACHISU UERUBOON JUNI ; JON AREKISANDAA EEUIN ; WELBORN HOWARD CURTIS ; WELBORN HOWARD CURTIS JR ; WELBORN JR HOWARD C ; WELBORN JR HOWARD CURTIS ; WELBORN HOWARD C JR ; JIYON AREKISANDAA EEUIN

Inventor(s): JOHN ALEXANDER EWEN ; WELBORN HOWARD C ; WELBORN JR ; HAWAADO KAACHISU UERUBOON JUNIA ; HOWARD CURTIS WELBORN ; HOWARD CURTIS WELBORN JR ; HAWAADO KAACHISU UERUBOON JIYUNIA

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP; YAMASAKI YUKUZO

Designated states: BE DE FR GB IT NL SE

Title: METHOD FOR PREPARING A SUPPORTED METALLOCENE-ALUMOXANE CATALYST FOR GAS PHASE POLYMERIZATION

Abstract: This invention relates to a process for preparing a supported metallocene alumoxane catalyst for use in the gas phase polymerization of olefins. The invention particularly relates to the use of silica gel containing from about 6 to about 10 percent by weight adsorbed water as the catalyst support material. It has been found that such silica gel may be safely added to an aluminum trialkyl solution to form by direct reaction with the adsorbed water content of the silica gel catalyst support material the alumoxane component of the catalyst system. An alumoxane coated silica gel is formed to which a metallocene may be added and the resulting material dried to free flowing powder. The dry free flowing powder may then be used as a supported metallocene alumoxane catalyst complex for gas phase polymerization of olefins.

Classifications:

International (IPC 8-9): B01J21/00 B01J23/16 B01J31/14 C07F17/00 C08F10/00 C08F2/34 C08F4/00 C08F4/02 C08F4/06 C08F4/44 C08F4/60 C08F4/622 C08F4/639 C08F4/6392 C08F4/642 C08F4/651 C08F4/656 C08F4/658 C08F4/659 C08F4/6592 C08F4/68 C08F4/685 (Advanced/Invention); C08F2/34 C08F4/639 C08F4/6392 C08F4/659 C08F4/6592 (Advanced/Non-invention); C07F17/00 C08F10/00 C08F2/34 C08F4/00 (Core/Invention); C08F4/00 (Core/Non-invention); C08F (Subclass/Invention)

International (IPC 1-7): B01J21/00 B01J21/04 B01J21/08 B01J23/16 B01J31/12 B01J31/14 B01J31/38 C07F17/00 C08F10/00 C08F10/02 C08F2/00 C08F2/34 C08F4/00 C08F4/02 C08F4/06 C08F4/16 C08F4/42 C08F4/44 C08F4/52 C08F4/58 C08F4/606 C08F4/62 C08F4/622 C08F4/626 C08F4/64 C08F4/642 C08F4/651 C08F4/656 C08F4/658 C08F4/68 C08F4/685 C08F4/76 C08G77/08

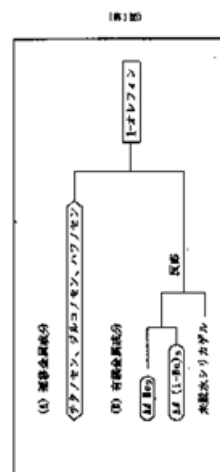
CPC: Y10S526/943 C08F4/63912 C08F4/63916 C08F4/6392 C08F4/63922 C08F4/65925 C08F10/00 C08F4/65912 C08F4/65916 C08F4/6592 G03B2227/325

European: C08F10/00 M08F4/6392 M08F4/6392B M08F4/639K M08F4/639L M08F4/6592 M08F4/6592B2 M08F4/659K M08F4/659L S03B2227/32M

US: 502/104 502/107 502/110 502/111 502/117 502/120 526/128 526/129 526/348.2 526/351 526/352 526/943 556/179

PatBase - JP7013100_B4

トリアルアルミニウム(9)シリカゲル、及びメタロセンからのジレフィン製造装置



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AT80167 E	19920915	AT19880311633T	19881208
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AU198943734 A1	19900503	AU19890043734	19891026
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AU199065308 A1	19910516	AU19900065308	19901009
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CA2001249 AA	19900427	CA19892001249	19891023
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CA2002436 AA	19900508	CA19892002436	19891107
CA2067177 AA	19920410	CA19902067177	19901009
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DE3874310 T2	19930225	DE19883874310T	19881208
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Priority:

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EP19890311067	19891026	EP19890311067	19891026	CA19892002436	19891107
WO1989US05006	19891107	WO1990US05769	19901009		

Probable Assignee: EXXON MOBIL CORP

Assignee(s): (std): EXXON CHEMICAL PATENTS ; EXXON CHEMICAL PATENTS INC ; CHANG MAIN ; EXXON CHEMICAL PATENTS INC US ; EXXON MOBIL CORP

Assignee(s): EXXON CHEMICAL PATENTS US ; EXXON CHEM PATENTS INC ; EXXON CHEMICAL PATENTS INC A CORP OF DELAWARE ; EXXON CHEMICAL PATENTS INC A DE CORP ; EXXON CHEMICAL PATENTS INC FLORHAM PARK N J US ; EXXON CHEMICAL PATENTS INC LINDEN N J US

Inventor(s): (std): MEN CHIYAN ; MEN CHAN ; MEIN CHIYAN ; MAIN CHANG US ; MAIN CHANG ; CHANG MAIN US ; CHANG MAIN ; CHANG M

Inventor(s): CHANG MAIN HOUSTON TX 77062 US ; CHANG MAIN HOUSTON TEXAS 77059 US

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP; REINHOLD COHN AND PARTNERS

Designated states: AT AU BE BR CA CH DE DK ES FI FR GB GR HU IT JP KR LU NL NO SE SU

Title: SUPPORTED POLYMERIZATION CATALYST

Abstract: An olefin polymerization catalyst comprising (a) a supported transition metal containing component comprising the support treated with at least one metallocene and at least one non-metallocene transition metal compound, and a cocatalyst comprising an alumoxane and an organometallic compound of a metal of Groups IA, IIA, IIB, or IIIA of the Periodic Table.

Classifications:

International (IPC 8-9): C08F10/00 C08F210/16 C08F4/42 C08F4/60 C08F4/62 C08F4/658 C08F4/659 C08F4/6592

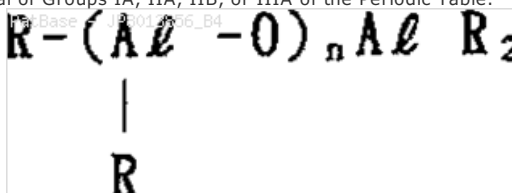
C08F4/76 (Advanced/Invention);
C08F210/16 C08F4/659 C08F4/6592 (Advanced/Non-invention);
C08F10/00 C08F4/00 (Core/Invention);
C08F210/00 C08F4/00 (Core/Non-invention);
B01J C08F (Subclass/Invention)

International (IPC 1-7): B01J C08F10/00 C08F10/02 C08F4/16 C08F4/42 C08F4/60 C08F4/62 C08F4/626 C08F4/64 C08F4/658 C08F4/68 C08F4/76

CPC: Y10S526/943 C08F4/65925 C08F10/00 C08F4/65904 C08F4/65912 C08F4/65916 C08F4/6592 C08F210/16

European: C08F10/00 M08F210/16 M08F4/6592 M08F4/6592B2 M08F4/659B M08F4/659K M08F4/659L

US: 502/103 502/113 502/114 502/115 502/116 502/117 502/120 502/121 502/123 502/129 502/132 526/114 526/116 526/119 526/348.6 526/352 526/943



Family:

Publication number	Publication date	Application number	Application date
AU198767285 A1	19870602	AU19870067285	19861114
AU599622 B2	19900726	AU19870067285	19861114
BRPI8606976 A	19871103	BR1986PI06976	19861114
CA1268753 A1	19900508	CA19860511354	19860611
CA1277973 A1	19901218	CA19860522227	19861105
DK369687 A	19870715	DK19870003696	19870715
DK369687 A0	19870715	DK19870003696	19870715
EP0232595 A1	19870819	EP19860308930	19861114
EP0232595 B1	19900502	EP19860308930	19861114
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FI873109 A	19870714	FI19870003109	19870714
FI873109 A0	19870714	FI19870003109	19870714
HU204291 B	19911230	HU19860001011	19861114
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IL80500 A0	19870227	IL19860080500	19861104
IL80500 A1	19911212	IL19860080500	19861104
JP63501369 T2	19880526	JP19860506191T	19861114
JP8013856 B4	19960214	JP19860506191	19861114
KR19887000827 A	19880412	KR19877000610	19861114
KR940004715 B1	19940528	KR19870700610	19861114
KR940004715 B1	19940528	KR19870070610	19870714
KR940004715 B1	19940528	KR19870070610	19870714
MX168653 B	19930602	MX19860009341	19861114
NO872890 A	19870710	NO19870002890	19870710
NO872890 A0	19870710	NO19870002890	19870710
PL262402 A1	19871130	PL19860262402	19861114
US4701432 A	19871020	US19860871962	19860609
US5124418 A	19920623	US19880279471	19881202
WO8702991 A1	19870521	WO1986US02449	19861114
YU193986 A	19880831	YU19860001939	19861114
YU45804 B	19920720	YU19860001939	19861114
YU45843 B	19920720	YU19880000791	19880420
YU79188 A	19881231	YU19880000791	19880420
ZA8608545 A	19871230	ZA19860008545	19861111

Priority:

US19850747616 19850621 US19850798763 19851115 US19860871962 19860609
CA19860511354 19860611 CA19860522227 19861105 WO1986US02449 19861114
US19870059292 19870608 US19880279471 19881202

Probable Assignee: EXXON MOBIL CORP

Assignee(s): (std): EXXON CHEMICAL PATENTS INC ; WELBORN HOWARD C ; EXXON MOBIL CORP

Assignee(s): WELBORN HOWARD C JR ; WELBORN HOWARD CURTIS JR ; EXXON CHEMICAL PATENTS INC A CORP OF DE ; EXXON CHEMICAL PATENTS INC US ; EWEN JOHN A ; EXXON CHEMICAL PATENTS

Inventor(s): (std): CURTIS JR WELBORN H ; CURTIS WELBORN HOWARD JR ; HOWARD CURTIS WELBORN JR ; WELBORN H C ; WELBORN HOWARD CURTIS JR ; WELBORN JR HOWARD C ; WELBORN JR HOWARD CURTIS ; WELBORN JR H C ; WELBORN HOWARD CURTIS ; WELBORN HOWARD C JR ; EWEN JOHN A ; WELBORN HOWARD C

Inventor(s): CURTIS JR ; WELBORN HOWARD C US ; WELBORN HC ; WELBORN JRHC

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP; REINHOLD COHN AND PARTNERS

Designated states: AT AU BE BR CH DE DK ES FI FR GB GR HU IT JP KR LI LU NL NO SE SU

Title: ELASTIC SUBSTANTIALLY LINEAR OLEFIN POLYMERS

Abstract: Substantially linear olefin polymers having a melt flow ratio, $I_{10}/I_2 \geq 5.63$, a molecular weight distribution, M_w/M_n , defined by the equation: $M_w/M_n \leq (I_{10}/I_2) - 4.63$, and a critical shear stress at onset of gross melt fracture of greater than about 4×10^6 dyne/cm² and their method of manufacture are disclosed. The substantially linear olefin polymers preferably have at least about 0.01 long chain branches/1000 carbons and a molecular weight distribution from about 1.5 to about 2.5. The new polymers have improved processability over conventional olefin polymers and are useful in producing fabricated articles such as fibers, films, and molded parts.

Classifications:

International (IPC 8-9): B29C47/00 B29C47/02 B32B27/08 B32B27/32 C08F10/00 C08F10/02 C08F2/02 C08F210/00 C08F210/02 C08F210/16 C08F4/00 C08G83/00 C08J5/18 C08L23/04 C08L23/08 C08L23/16 C09D123/06 (Advanced/Invention); C08F110/00 C08F110/02 C08F4/659 C08F4/6592 C08L23/02 C08L23/06 (Advanced/Non-invention); B29C47/00 B29C47/02 B32B27/08 B32B27/32 C08F10/00 C08F2/02 C08F210/00 C08G83/00 C08J5/18 C08L23/00 C09D123/00 (Core/Invention); C08F110/00 C08F4/00 (Core/Non-invention)

International (IPC 1-7): C08F210/08 C08F210/14

CPC: Y10S526/943 B29C65/8207 C08G83/003 B29C47/00 B29C47/0004 B29C47/0026 B29C47/02 B29C65/8223 B29C66/71 B29K2995/0022 B32B27/08 B32B27/322 C08F4/65908 C08F10/00 C08F10/02 C08F110/00 C08F110/02 C08F210/00 C08F210/16 C08J5/18 C08J2303/08 C08J2323/08 C08L23/02 C08L23/04 C08L23/06 C08L23/0815 C08L23/16 C08L2205/02 C08L2314/06

European: B29C47/00B B29C47/02 B32B27/08 B32B27/32A C08F10/00 C08F10/02 C08F210/00 C08F210/02 C08F210/16 C08G83/00D1 C08J5/18 C08L23/04 C08L23/08A1 C08L23/16 L29C47/00 L29C65/82B4 L29C66/71 L29K995/00E3 M08F10/02 M08F110/00 M08F110/02 M08F210/16 M08F4/659D M08J303/08 M08J323/08 M08L205/02 M08L23/02 M08L23/06 M08L23/08A1 M08L314/06

US: 502/152 526/127 526/160 526/170 526/348.2 526/348.4 526/348.5 526/348.6 526/943

PatBase - US5272236_A

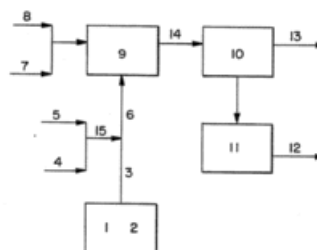
U.S. Patent

Dec. 21, 1993

Sheet 1 of 5

5,272,236

FIG. 1



Family:

Publication number	Publication date	Application number	Application date
US5272236 A	19931221	US19910776130	19911015

Priority:

US19910776130 19911015 CN19931005687 19930414

Probable Assignee: DOW CHEMICAL CO

Assignee(s): (std): DOW CHEMICAL CO

Assignee(s): THE DOW CHEMICAL COMPANY

Inventor(s): (std): CHUM PAK WING S ; KNIGHT GEORGE W ; LAI SHIH YAW ; STEVENS JAMES C ; WILSON JOHN R

Title: Hydrocarbon interpolymer compositions

Abstract: Interpolymers composed of ethylene and higher olefinic hydrocarbons having 5 to 18 carbon atoms per molecule. Said interpolymers being useful as molding, pipes and wire cotaings.

Classifications:

International (IPC 8-9): C08F210/16 (Advanced/Invention)

International (IPC 1-7): A24F13/24 C08F10/00 C08F210/14 C08F210/16

CPC: C08F210/16

European: C08F210/16 M08F210/16

US: 260/88.2F 526/348.2 526/348.3 526/348.4 526/348.5 526/348.6

Family:

Publication number	Publication date	Application number	Application date
US4076698 A	19780228	US19570632416	19570104
US4076698 B1	19930427	US19570632416	19570104
USB632416 I	19760309	US19570632416D	19570104

Priority:

US19560568707 19560301

Probable Assignee: DU PONT

Assignee(s): (std): DU PONT

Assignee(s): E I DU PONT DE NEMOURS AND COMPANY

Inventor(s): (std): ANDERSON ARTHUR WILLIAM ; STAMATOFF GELU STOEFF ; GELU S STAMATOFF ; ARTHUR W ANDERSON

Title: SUPPORTED METALLOCENE-ALUMOXANE CATALYST FOR HIGH PRESSURE POLYMERIZATION OF OLEFINS AND A METHOD OF PREPARING AND USING THE SAME

Abstract: This invention relates to a process for preparing a supported metallocene alumoxane catalyst for use in the high pressure polymerization of olefins. The invention particularly relates to the use of silica gel having a particle size less than 10 microns containing from about 5 to about 20 per cent by weight absorbed water as the catalyst support material. It has been found that such silica gel may be safely added to an aluminum trialkyl solution to form by direct reaction with the adsorbed water content of the silica gel catalyst support material the alumoxane component of the catalyst system. An alumoxane coated silica gel is formed to which a metallocene may be added and the resulting material dried to free flowing powder. The dried free flowing powder may then be used as a catalyst for high pressure polymerization of olefins.

Classifications:

International (IPC 8-9): C08F10/00 C08F4/02 C08F4/60 C08F4/622 C08F4/639 C08F4/6392 C08F4/64

C08F4/642 (Advanced/Invention);

C08F4/639 C08F4/6392 (Advanced/Non-invention);

C08F10/00 C08F4/00 (Core/Invention);

C08F4/00 (Core/Non-invention);

C08F (Subclass/Invention)

International (IPC 1-7): B01J32/00 C08F10/00 C08F4/02 C08F4/16 C08F4/622 C08F4/64 C08F4/642 C08F4/68

CPC: Y10S526/943 C08F10/00 C08F4/63912 C08F4/63916 C08F4/6392

European: C08F10/00 M08F4/6392 M08F4/639K M08F4/639L

US: 502/111 502/117 502/120 526/129 526/943

Family:

Publication number	Publication date	Application number	Application date
AU198943296 A1	19900418	AU19890043296	19890926
AU625601 B2	19920716	AU19890043296	19890926
BRPI8907098 A	19910108	BR1989PI07098	19890926
DK129090 A	19900720	DK19900001290	19900525
DK129090 A0	19900525	DK19900001290	19900525
EP0361866 A1	19900404	EP19890309791	19890926
FI902637 A0	19900525	FI19900002637	19900525
HU53916 A2	19901228	HU19890005732	19890926
HU8905732 A0	19901128	HU19890005732	19890926
IL91766 A0	19900610	IL19890091766	19890925
JP3501869 T2	19910425	JP19890510387T	19890926
KR19907001859 A	19901204	KR19907001098	19890926
NO902327 A	19900525	NO19900002327	19900525
NO902327 A0	19900525	NO19900002327	19900525
PT91829 A	19900330	PT19890091829	19890927
US4935397 A	19900619	US19880250293	19880928
WO9003403 A1	19900405	WO1989US04183	19890926
YU188189 A	19910228	YU19890001881	19890928

Priority:

US19880250293 19880928 WO1989US04183 19890926

Probable Assignee: EXXON MOBIL CORP

Assignee(s): (std): EXXON CHEMICAL PATENTS INC ; EXXON MOBIL CORP

Assignee(s): EXXON CHEMICAL PATENTS INC US ; EXXON CHEMICALS PATENTS INC

Inventor(s): (std): CHANG M ; CHANG MAIN

Inventor(s): CHANG MAIN US ; MAIN CHANG

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD

Designated states: AT AU BE BR DE DK ES FI FR GB HU IT JP KR LU NL NO SE SU

Title: PROCESS FOR PREPARATION OF HOMOGENOUS RANDOM PARTLY CRYSTALLINE COPOLYMERS OF ETHYLENE WITH OTHER ALPHA-OLEFINS

Abstract: ABSTRACT OF THE DISCLOSURE

Preparation of copolymers of ethylene and an alpha olefin having at least four carbon atoms using an inert solvent and a catalyst formed using particular ratios of an aluminum halide and a vanadium compound.

Classifications:

International (IPC 8-9): C08F210/16 (Advanced/Invention); C08F210/00 (Core/Invention)

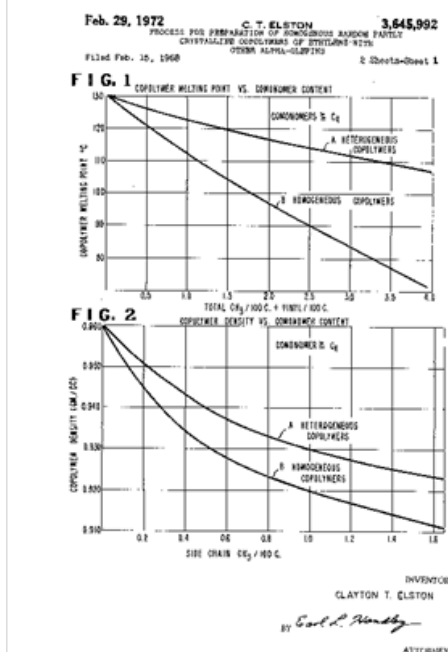
International (IPC 1-7): C08F10/02 C08F15/04 C08F210/02 C08F210/16

CPC: C08F210/16

European: C08F210/16

US: 526/169.2 526/348.2 526/348.3 526/348.6

PatBase - US3645992_A



Family:

Publication number	Publication date	Application number	Application date
CA849081 A	19700811	CA19670984213	19670302
DE1745308 A1	19710909	DE19681745308	19680301
FR1604980 A	19720626		19680304
GB1209825 A	19701021	GB19680009619	19680228
NL6802959 A	19680903	NL19680002959	19680301
US3645992 A	19720229	US19680705701	19680215

Priority:

CA19670984213 19670302

Probable Assignee: DU PONT CANADA

Assignee(s): (std): DU PONT ; DU PONT CANADA

Assignee(s): DU PONT OF CANADA LIMITED ; DU PONT OF CANADA LTD ; E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND COMPANY ; EIDU PONT DE NEMOURS AND CO ; CLAYTON T ELSTON

Inventor(s): (std): ELSTON CLAYTON TREVOR ; TREVOR ELSTON CLAYTON ; ELSTON CLAYTON T

Inventor(s): CLAYTON T ELSTON ; CLAYTON TREVOR ELSTON